More on the lambda

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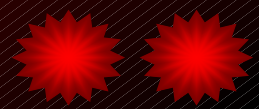
Ppg016 meeting

Dec 26, 2002

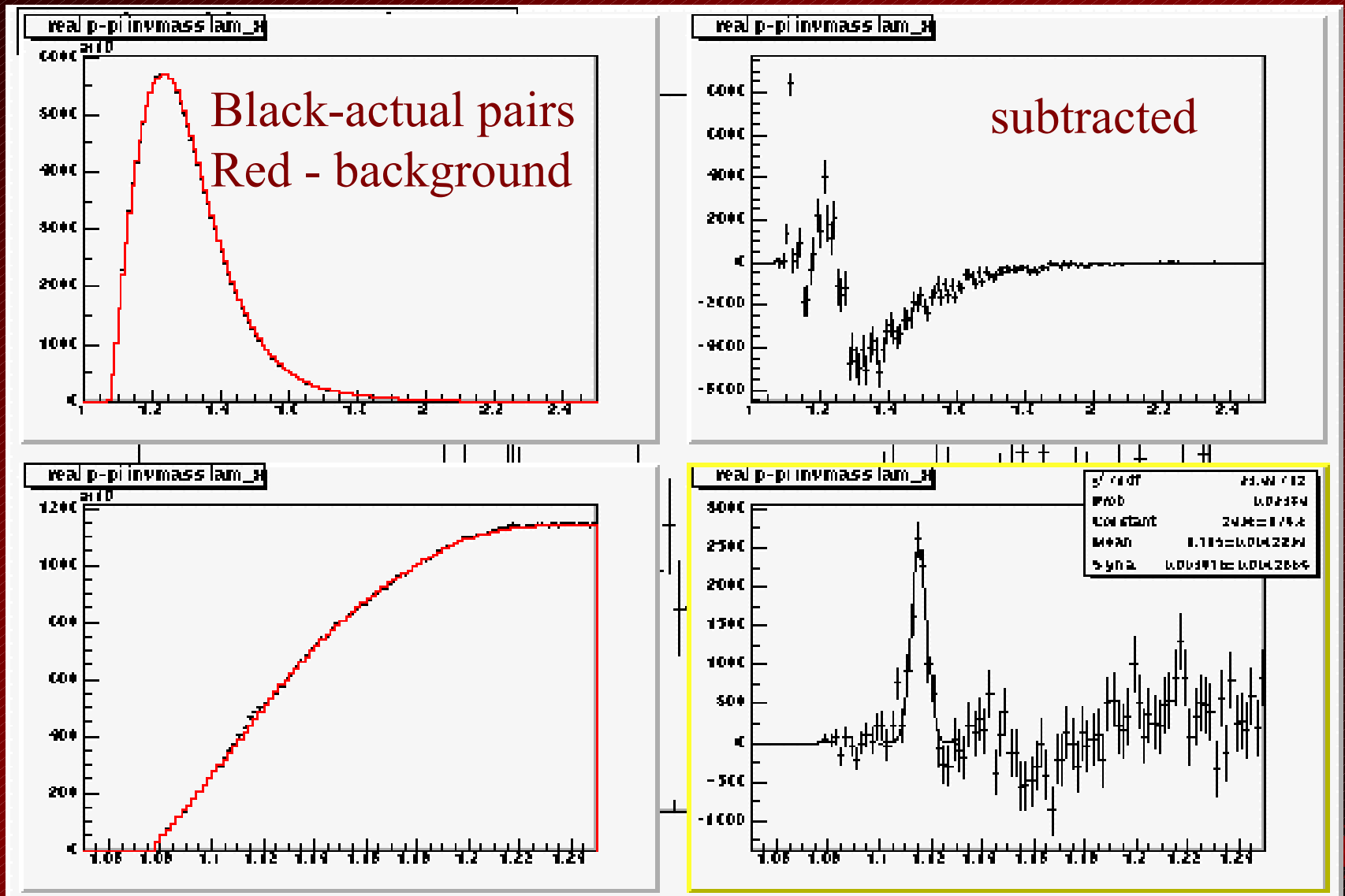
Procedure

- CNT ntuples to pair ntuples from munir – only p pi+. (Munir is working on pbar pi- after disk space was made available)
- TOF-TOF, EMCE-EMCE, TOF-EMCE
- No additional cuts for now
- Normalization is just between 1.13 –1.2 GeV
  - Note- mass of lambda is 1.1157
- Gaussian fit, convoluted with gausian of 1.3 GeV (from resolution?)- extracted "width" is plotted from 1.10-1.13 (30 MeV, 2 MeV bins, 15-3=12 degrees of freedom
  - Chisq tends to be ~ 25 (10-45) for 13 DOF
- Centrality bins 0-10, 10-20, 20-40, 40-60, 60-100
- Pt bins .3-1.8, 1.8-5
- Still problems with background



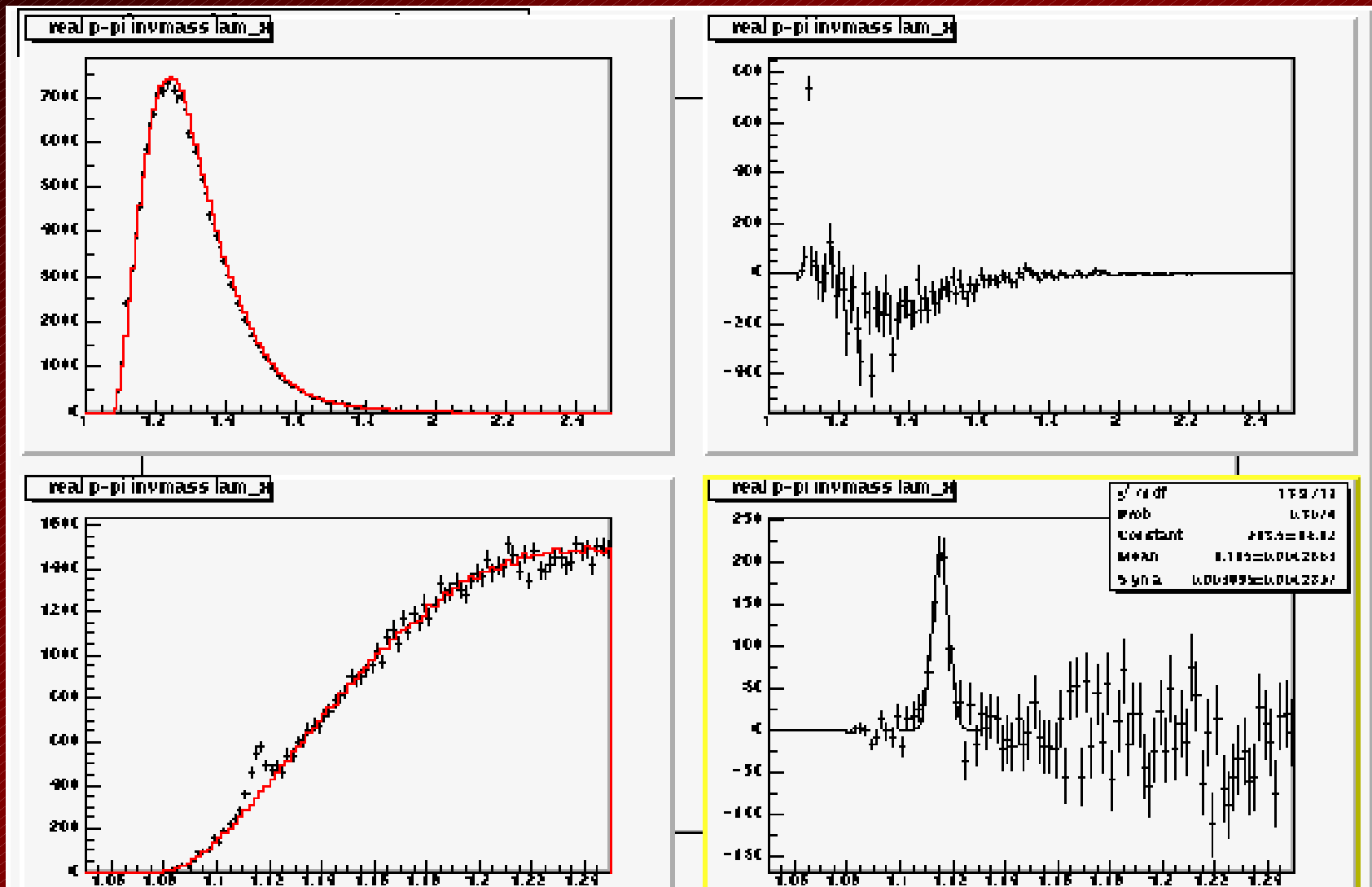
All East, all pt, 0-10%,

chisq=43/12 Good central signal, pathology in subtractions



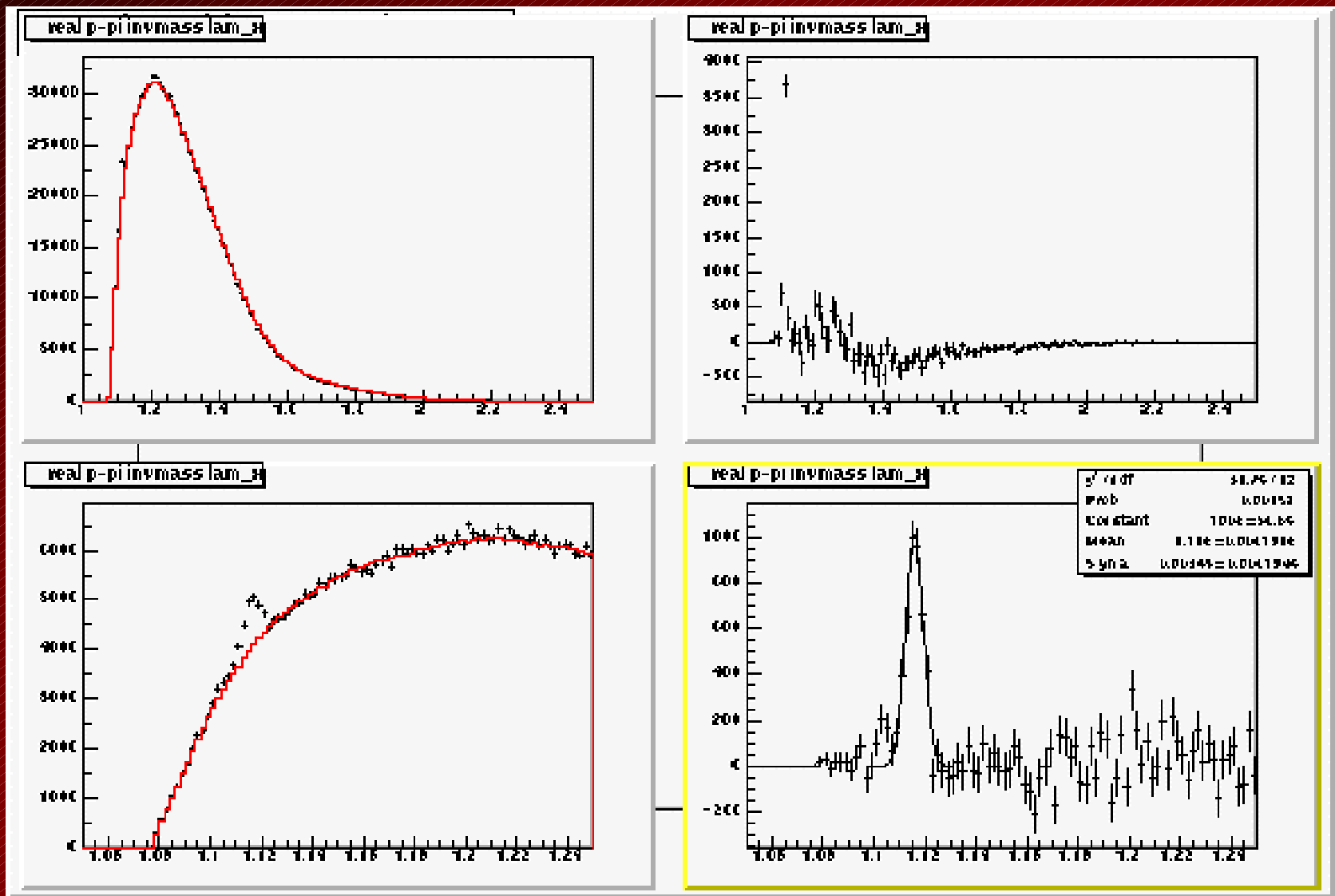
All East, pt<1.8, 60-100%

chisq=14/12 DOF, good peripheral signal, low pt



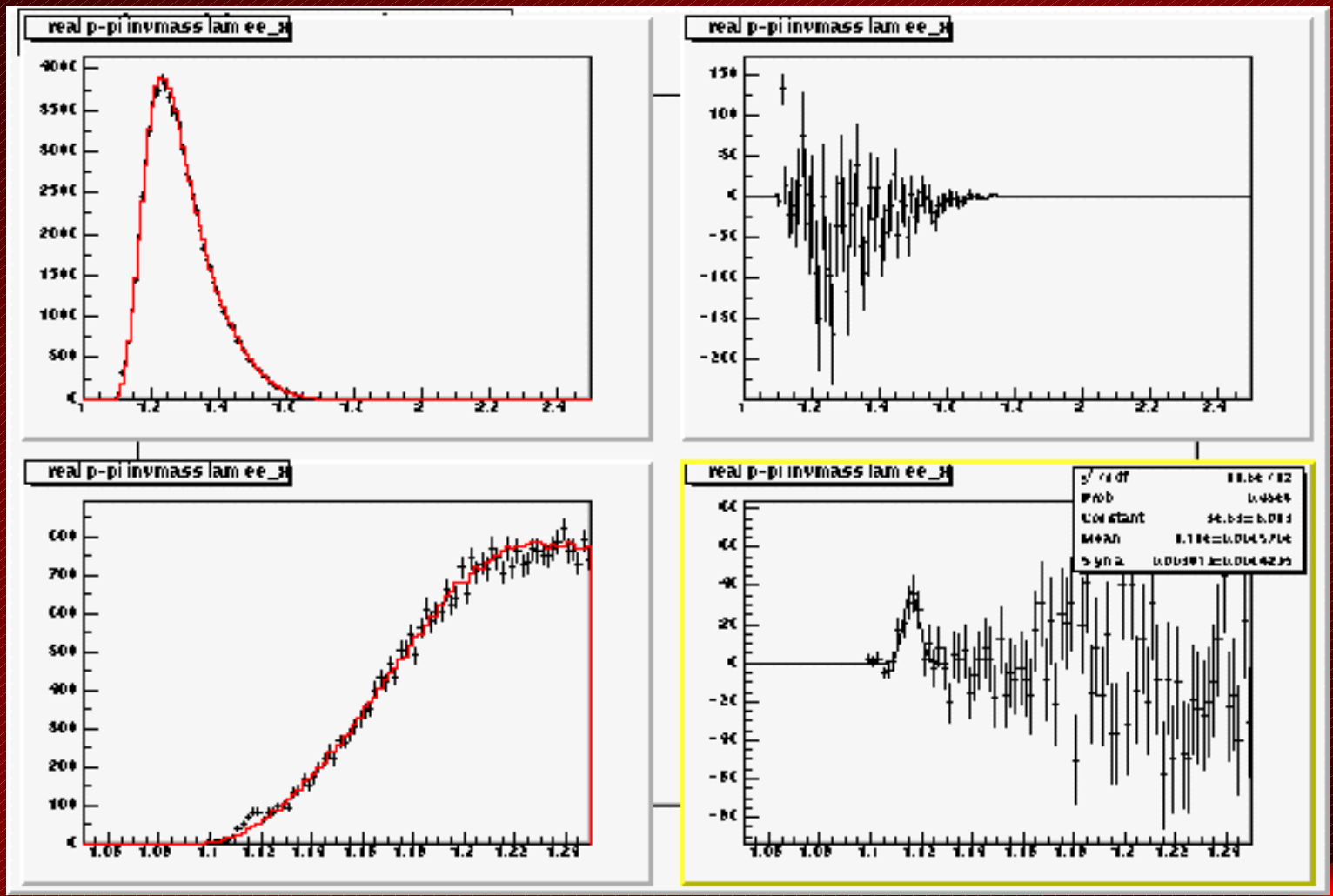
All east, pt>1.8, 60-100%

chisq=16/12 DOF, good signal – high pt



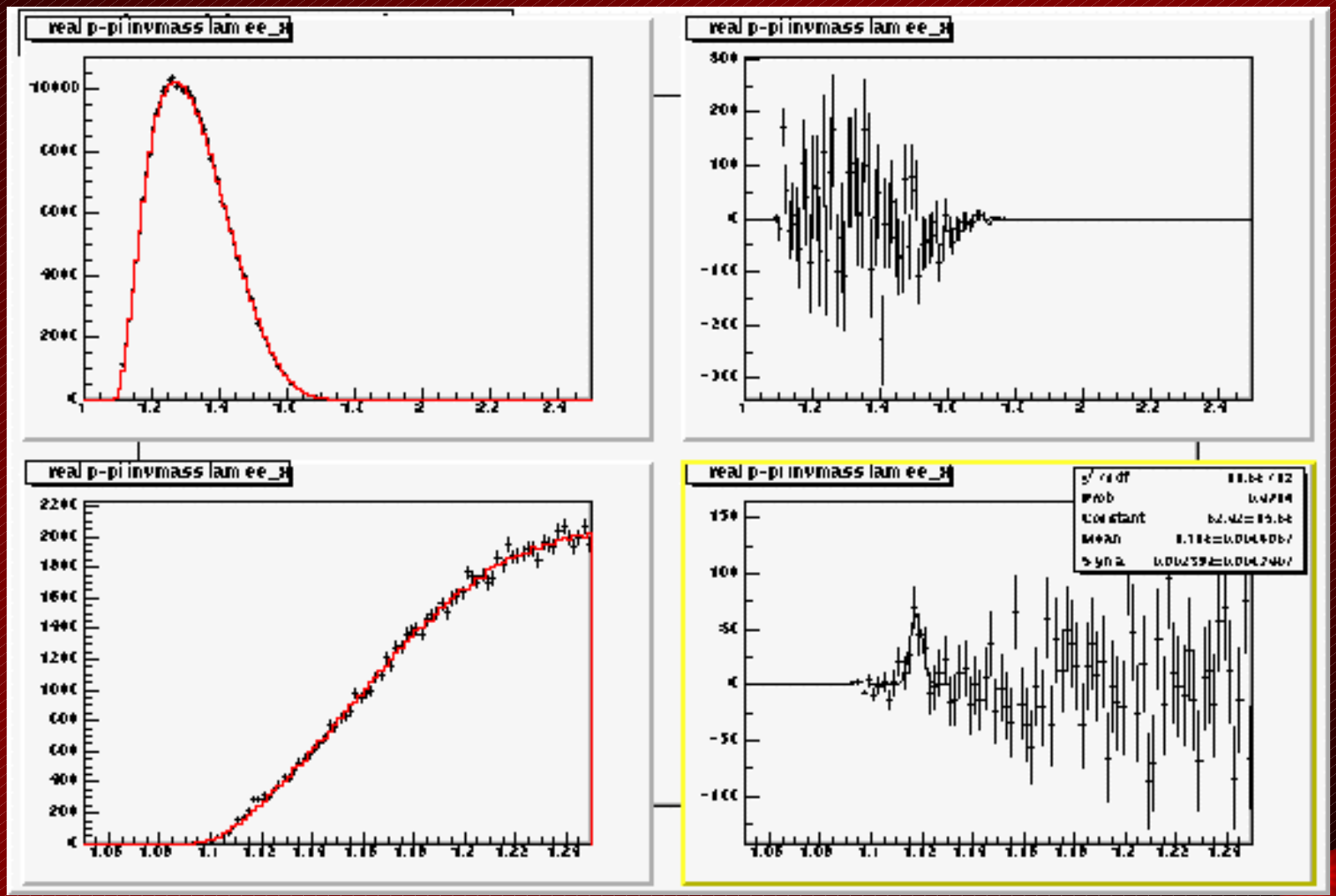
Emce-emce, pt<1.8, 60-100%,

chisq=12/12 DOF, emc only, good signal at low pt



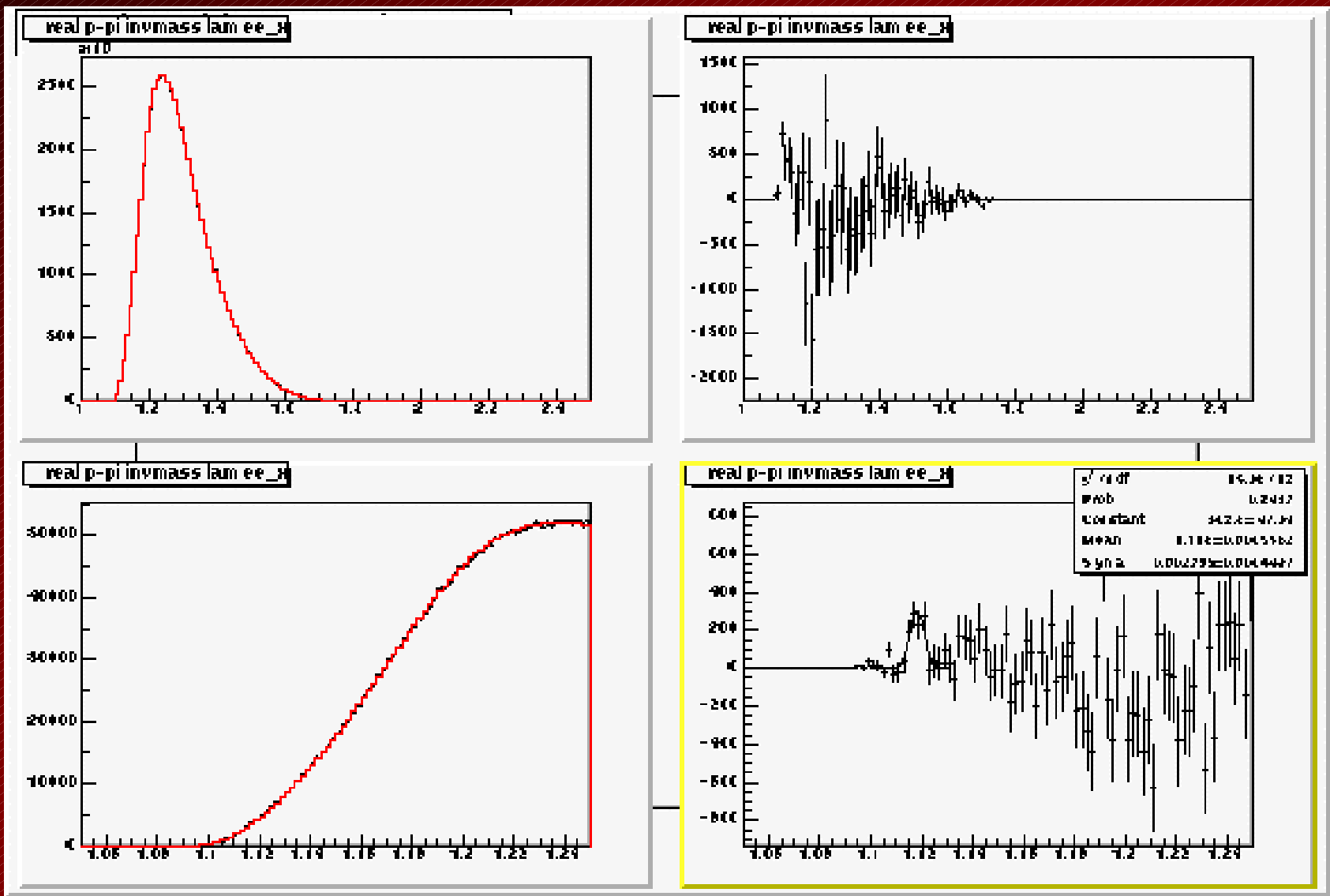
Emce-emce, pt>1.8, 60-100%

lower signal at high pt



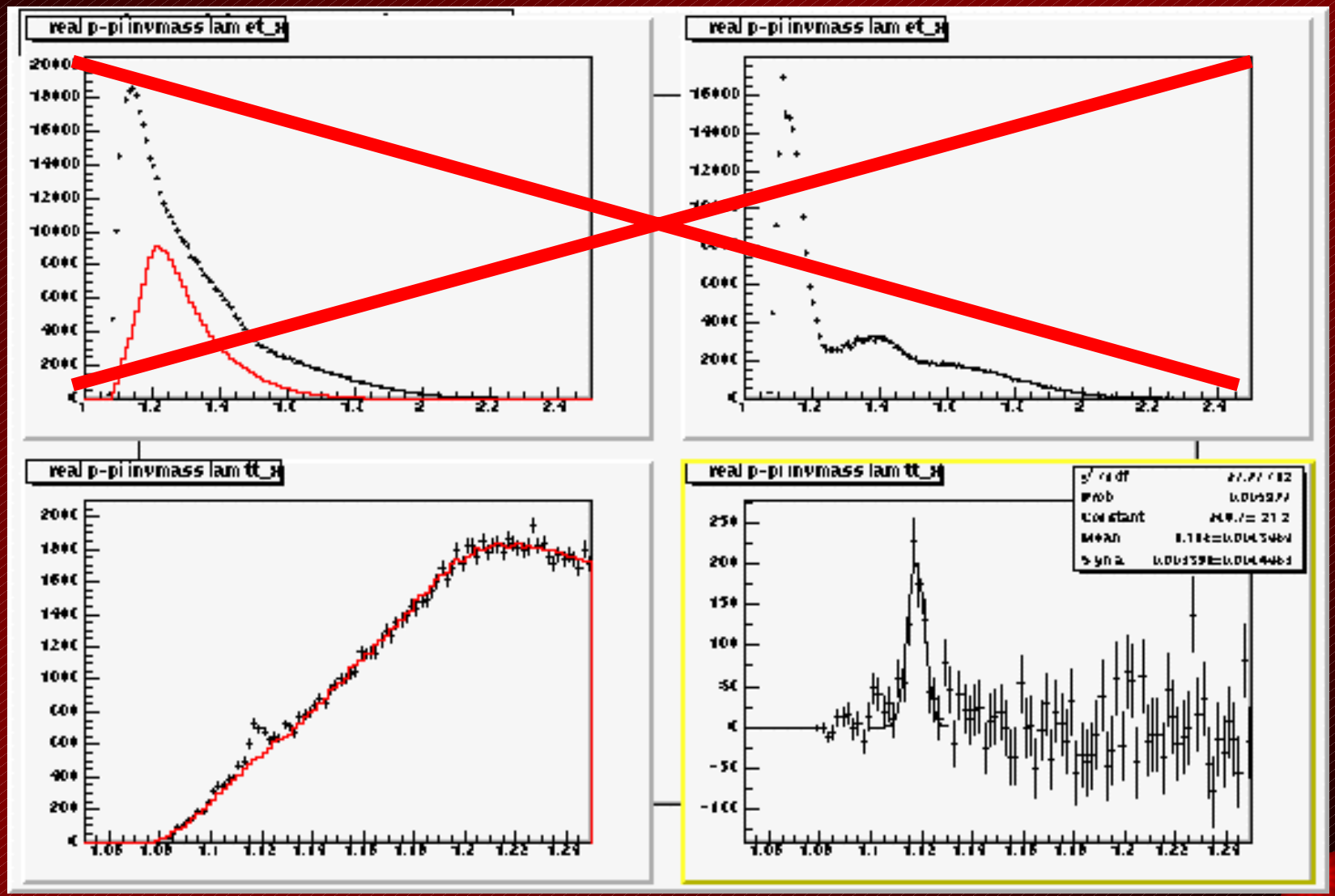
Emc-emc pt<1.8 0-10%

chisq=15/12 dof central signal at low pt



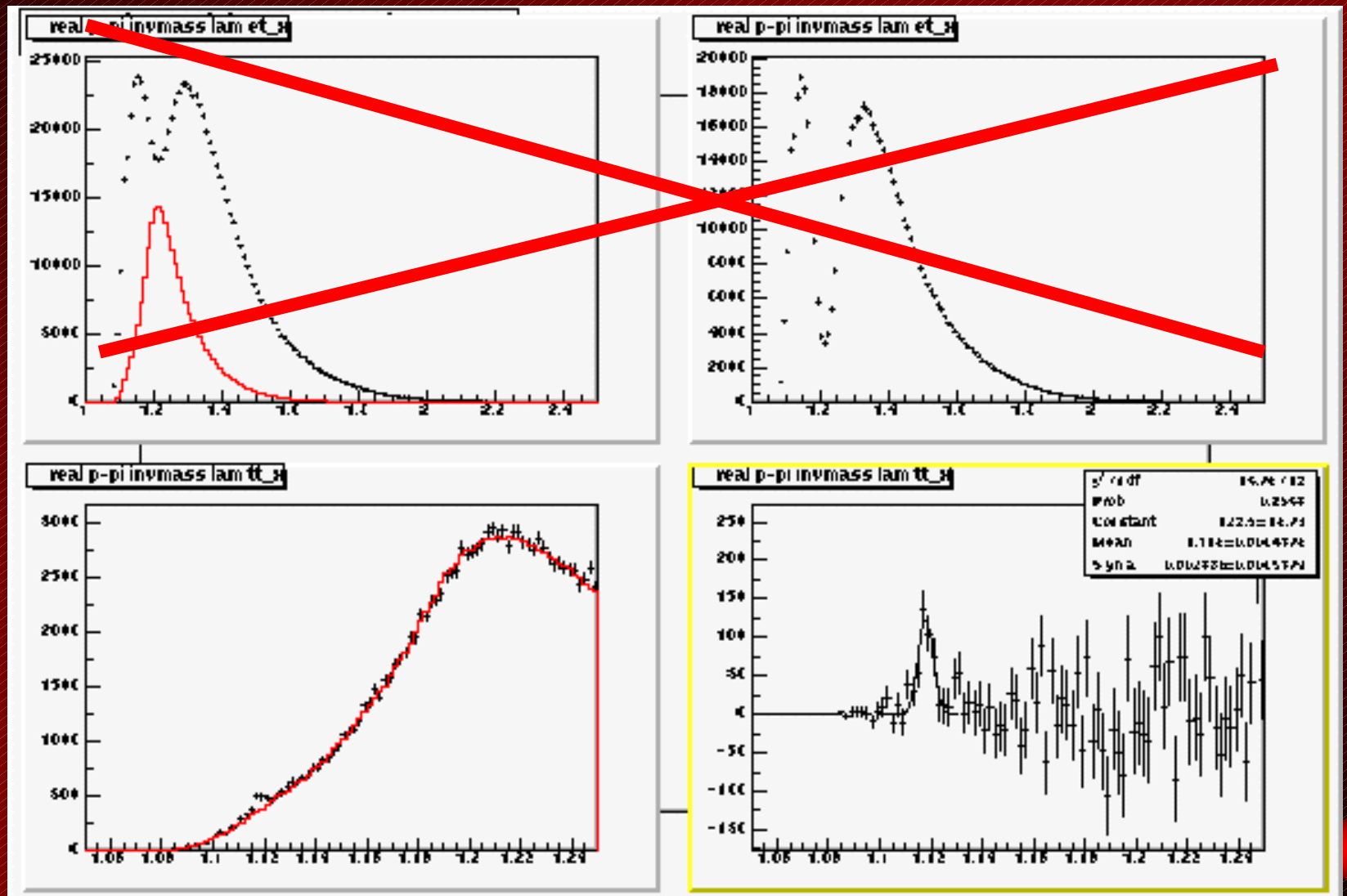
TOF-TOF, high pt 60-100%

chisq=28, good signal at high pt

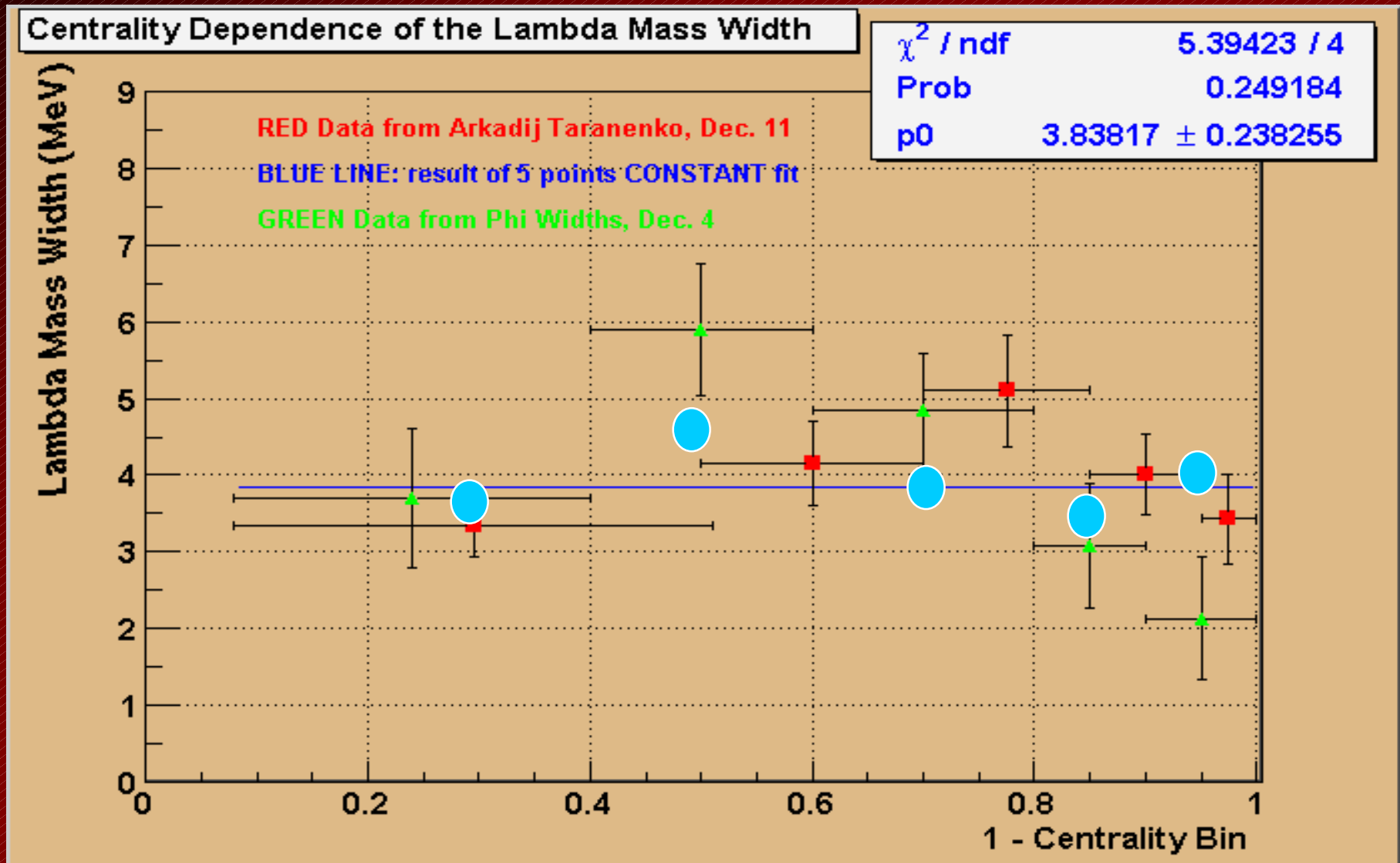


TOF-TOF, low pt, periph

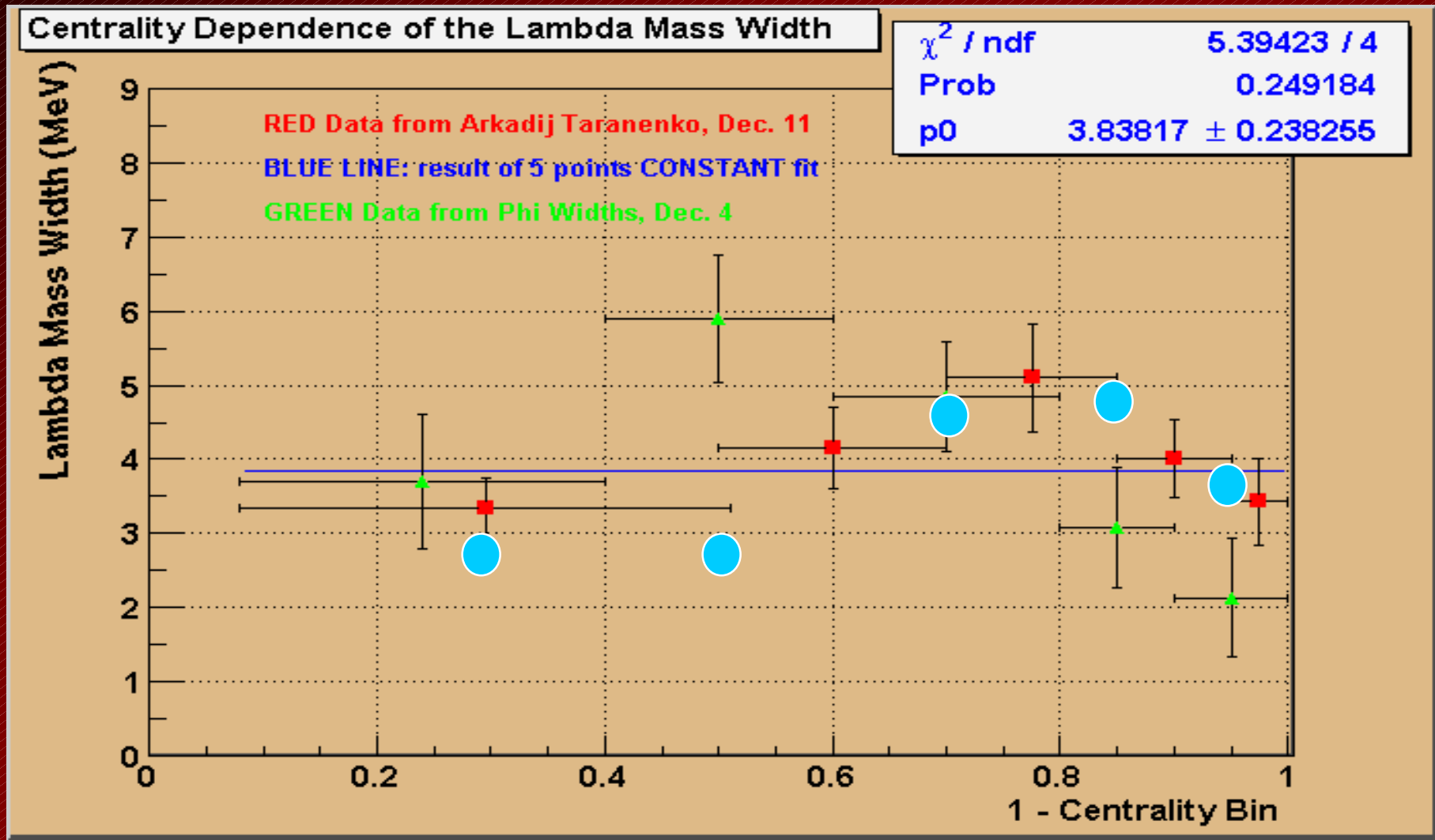
lower signal at low pt



Lambda Mass Width (Tof-Tof Data from Arkadij, all East from RKS)

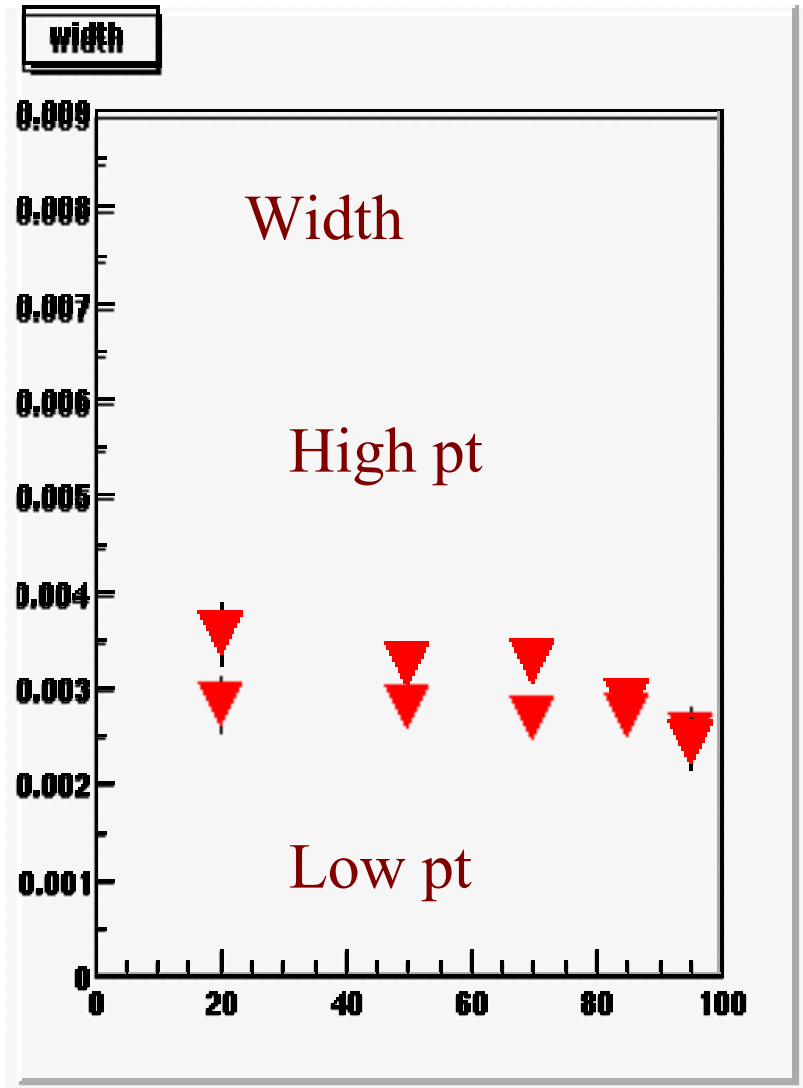


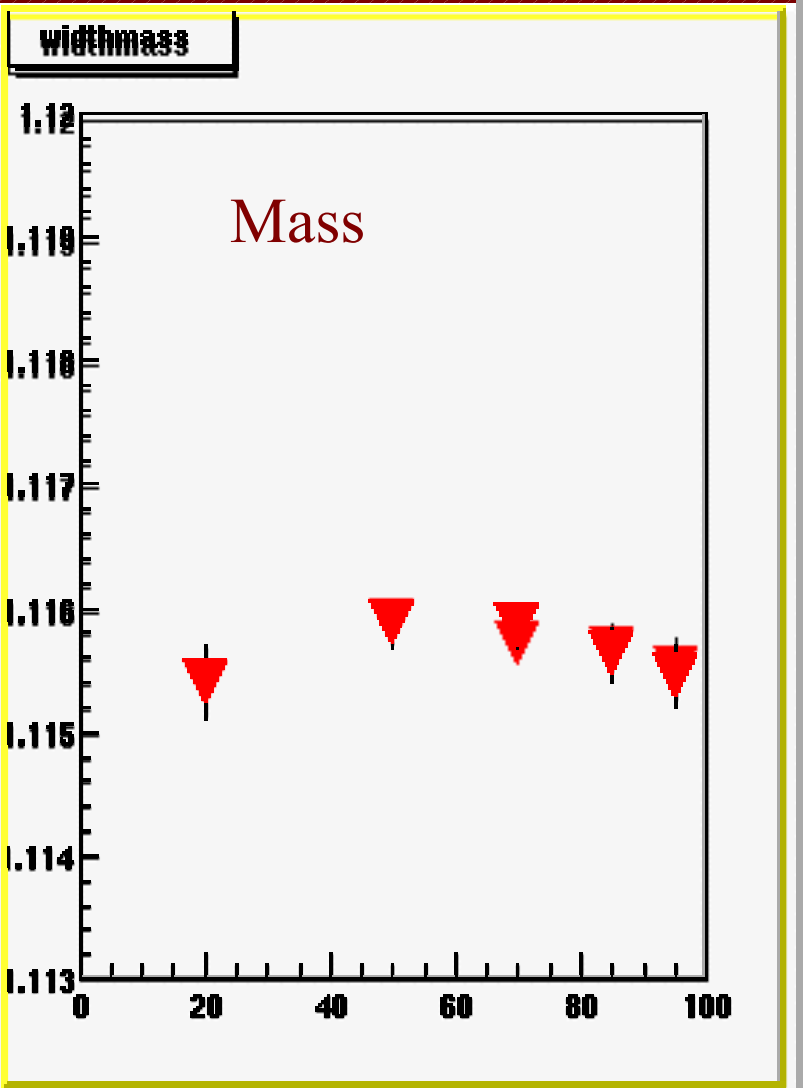
Lambda Mass Width (Tof-Tof Data from Arkadij, Tof-Tof from RKS)



All east, low pt vs high pt

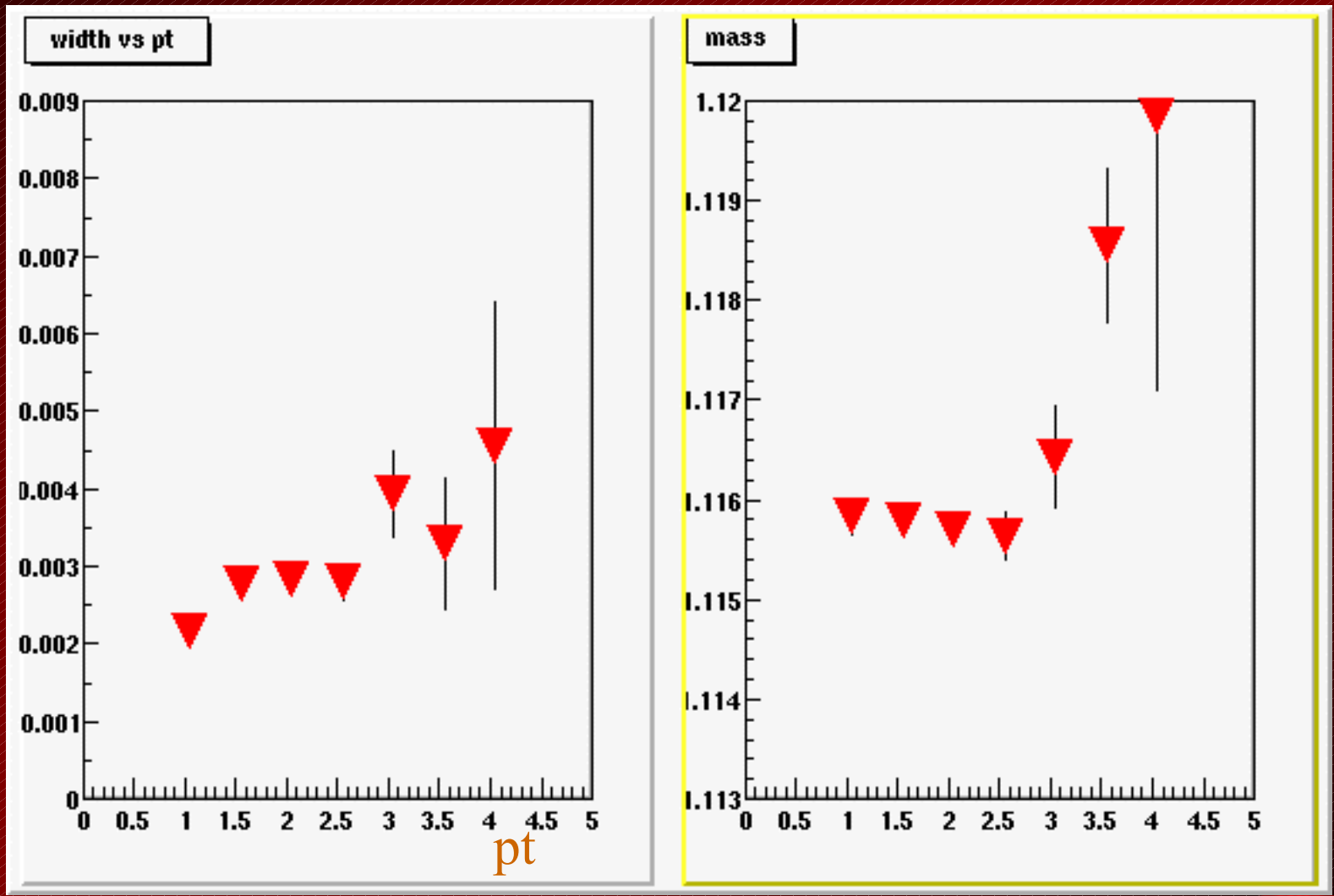
high pt is wider, mass stays same





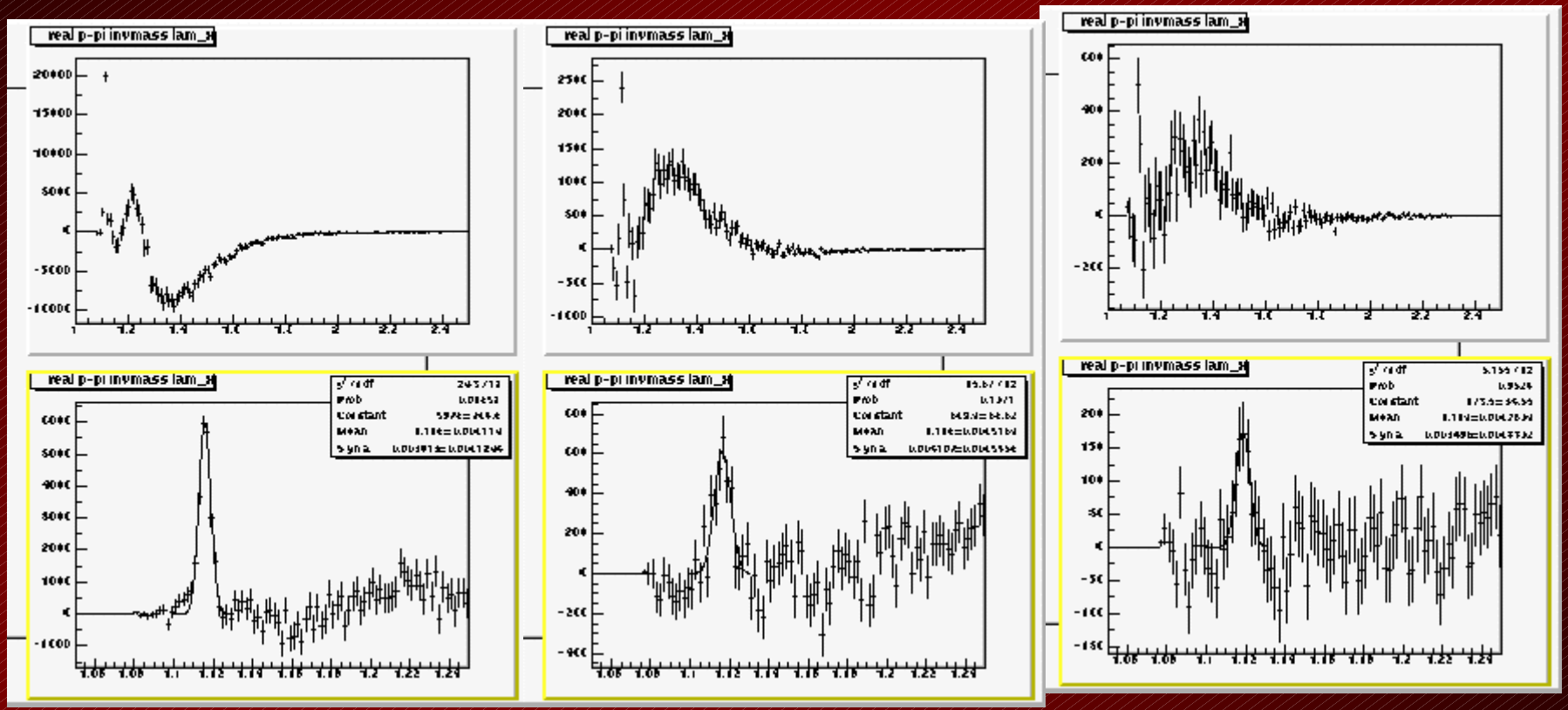
Width vs pt-

width increases with pt



Width for pt

you can see width incease, mass?



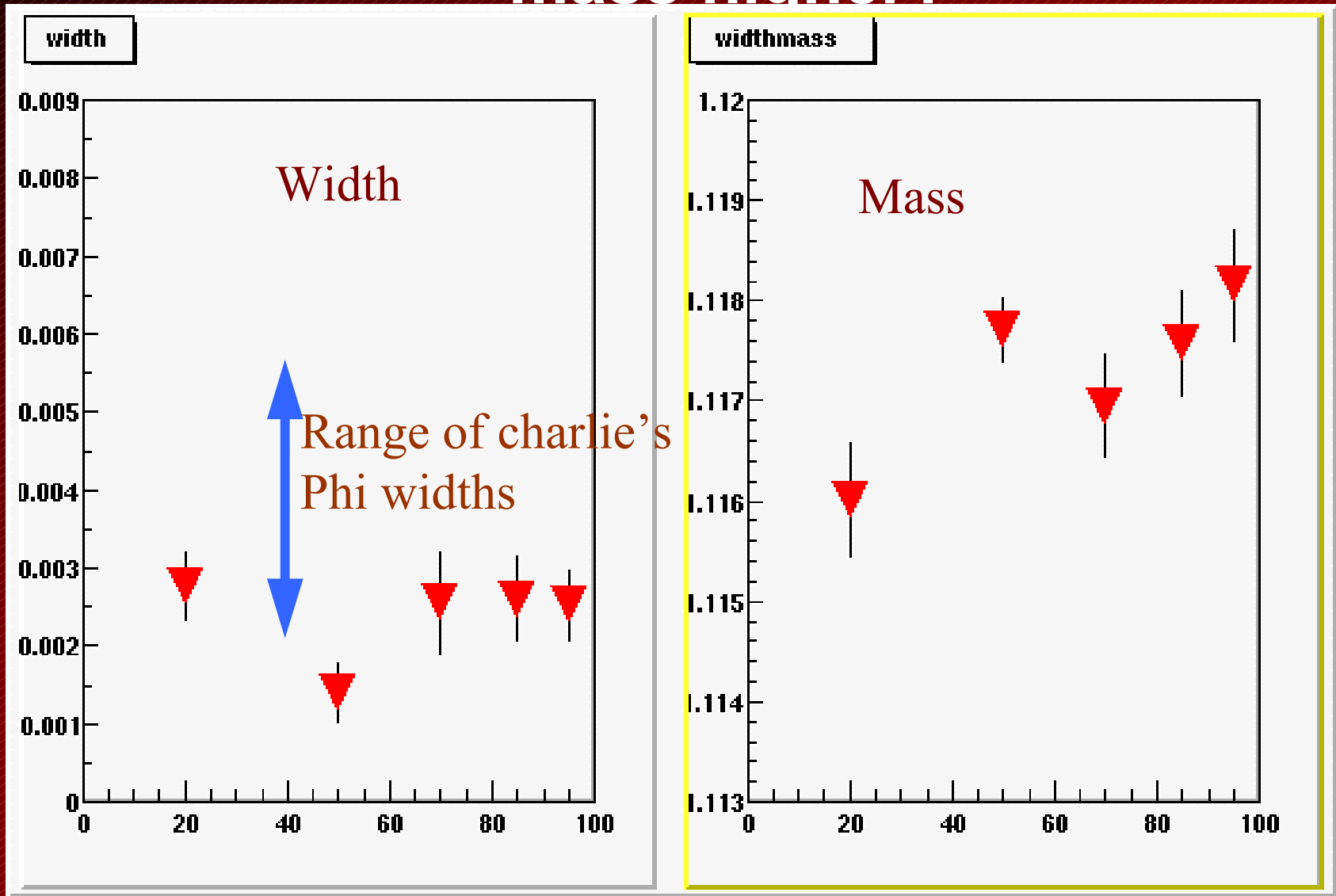
Pt=1.5

Pt=3

Pt=3.5

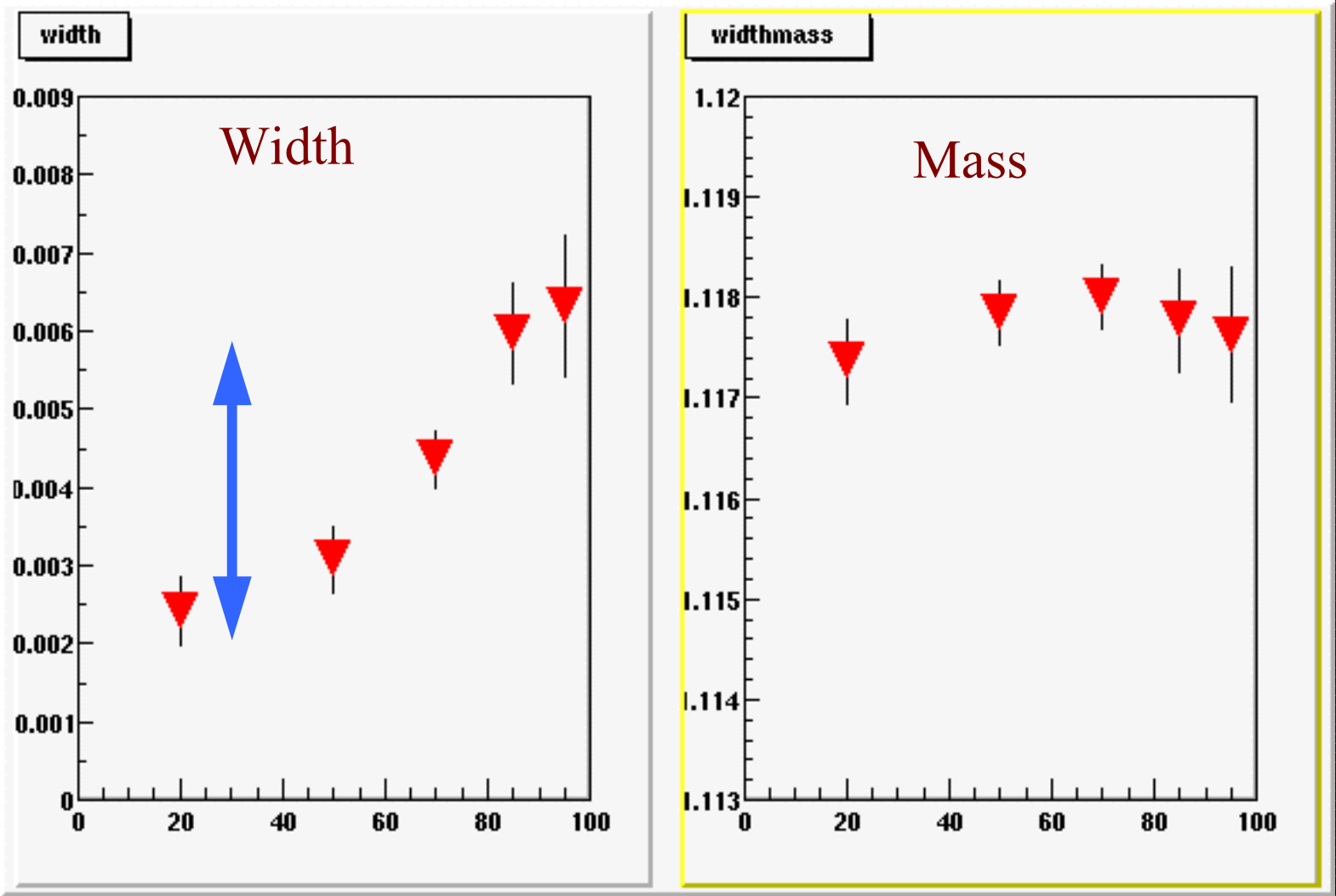
Emc-emc all pt

mass higher?

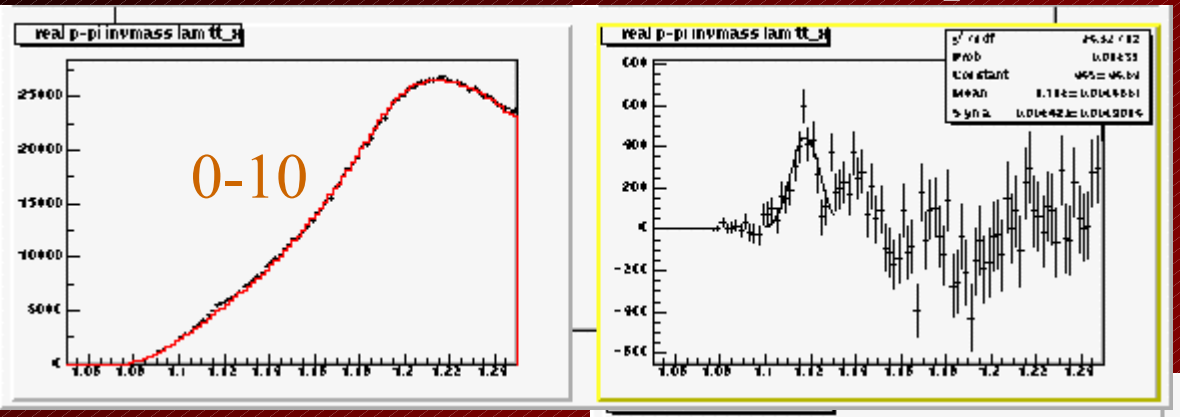


TOF-TOF all pt

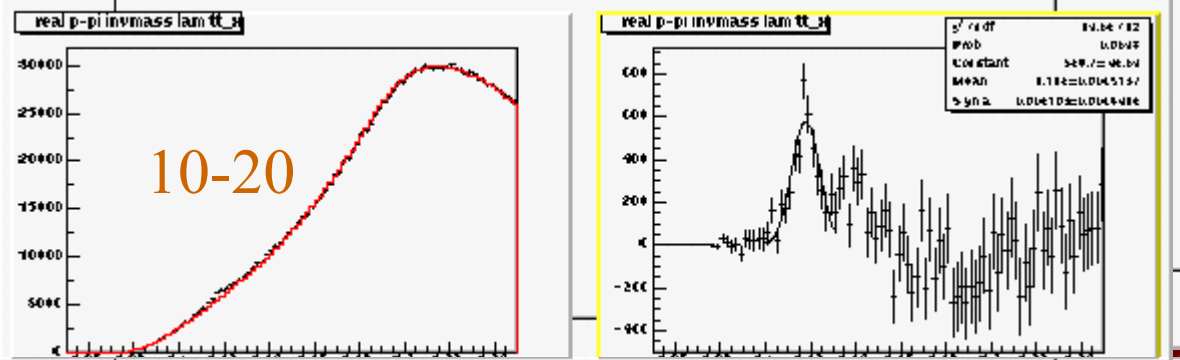
mass higher?

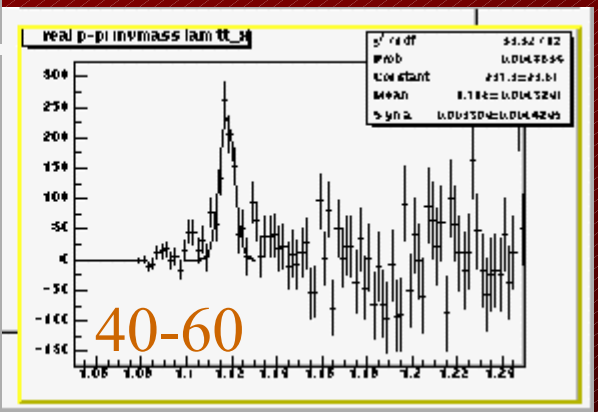


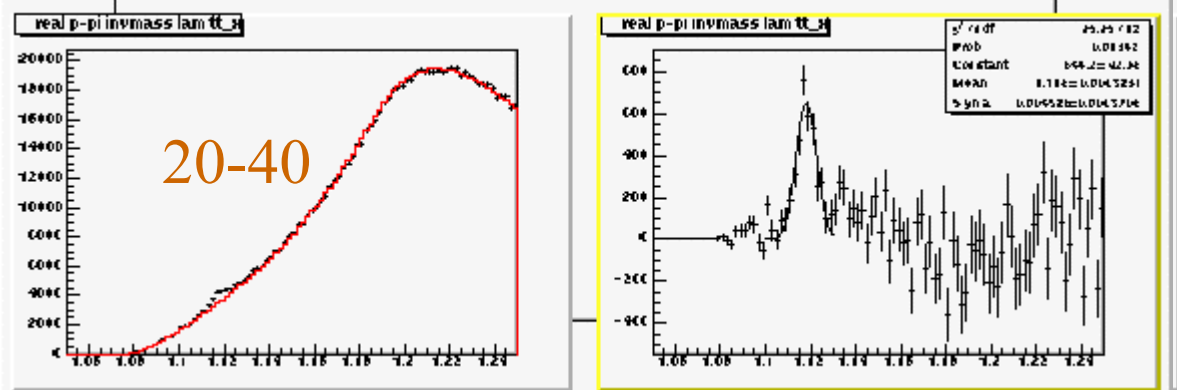
TOF-TOF plots all pt

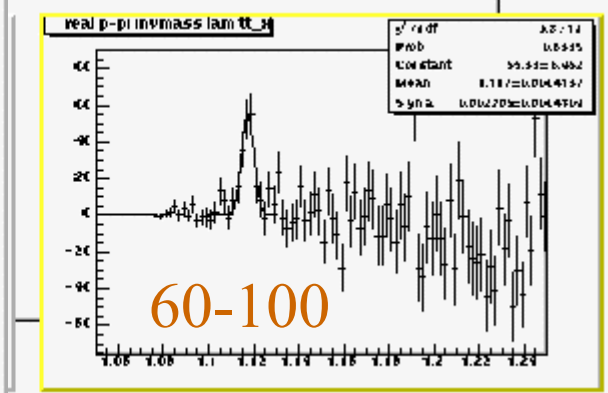


Some extra structure
Broadening the peak
In central events

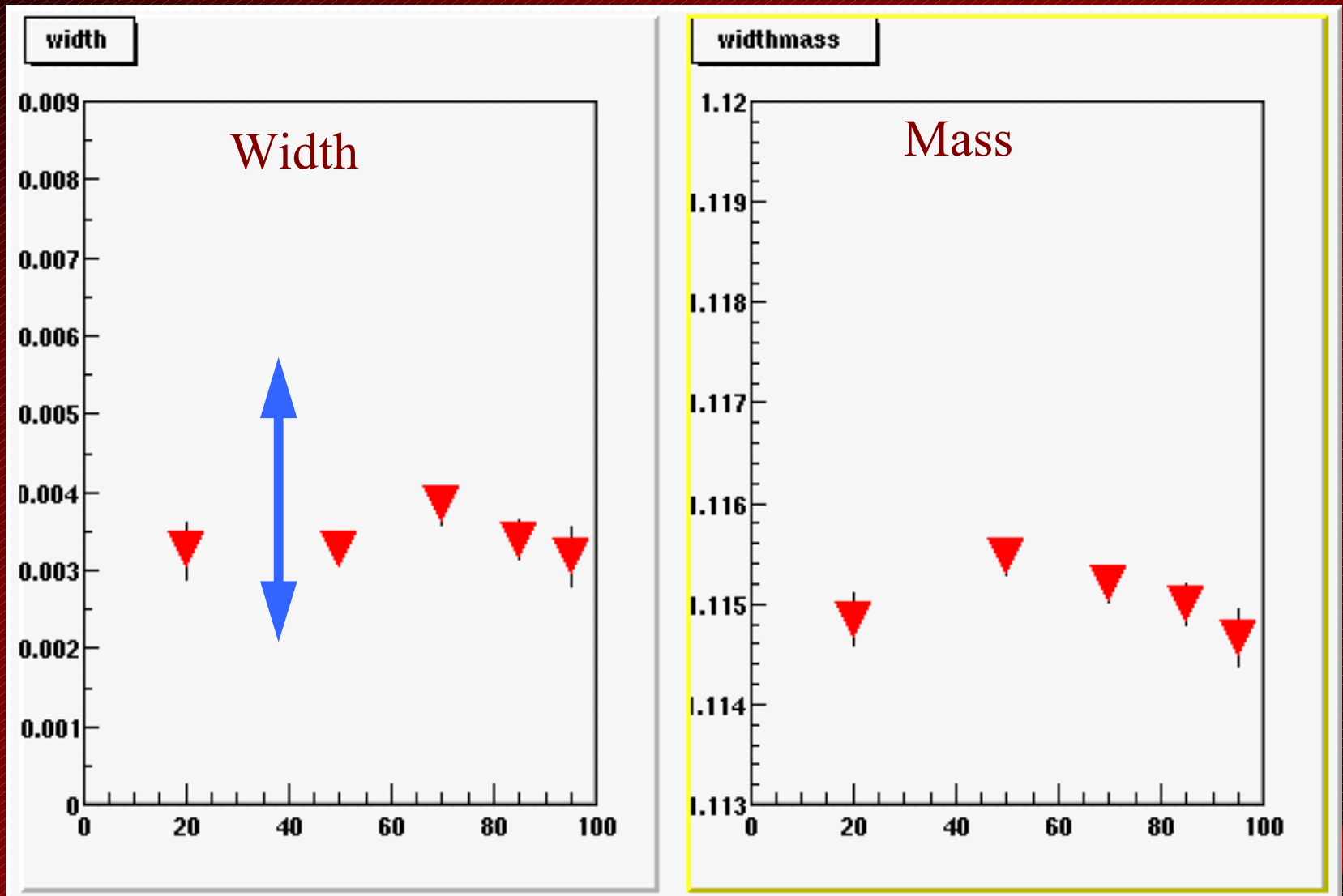








EMC-TOF all pt



All east, all pt

width – pretty flat